

Isolated Children's Parents' Association of Australia Inc.

"Access to Education"



Submission

to the

Regional Telecommunications Independent Review Committee

into the

Regional Telecommunications Review 2021

from the

Federal Council

of the

**Isolated Children's Parents' Association of Australia Inc.
ICPA (Aust)**

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The Isolated Children's Parents' Association of Australia, ICPA (Aust), welcomes the opportunity to contribute to the *Regional Telecommunications Review 2021* providing feedback related specifically to the communications needs of rural and remote education and geographically isolated students.

Since the last Regional Telecommunications Review in 2018, there have been some major communications developments in regional, rural and remote locations. The nation has also experienced a considerably changed environment as a result of the COVID-19 pandemic. ICPA (Aust) has welcomed the telecommunication advances which have proven very beneficial to our members, including the roll out of Sky Muster Plus and COVID 19 related responses such as extra data allowances and SMS over WiFi.

It is important that these advancements be maintained and enhanced, coupled with a necessity to address the communications lags and issues which continue to hinder equitable educational opportunity. It is especially important to ensure there is a recognition that experiences, challenges and needs differ considerably between regional vs rural vs remote areas. Further differentiation may be experienced depending upon geographic location in terms of weather, landscape and environment. As an example, given that by definition, the Gold Coast and Perth are deemed regional, there are very different communications experiences/situations in those locations when compared to a remote property in the Queensland Gulf or the Western Australia Pilbara.

EQUITABLE ACCESS

The key message which ICPA (Aust) continues to promote across all components of our advocacy is equitable access to educational opportunities for geographically isolated students. Often in rural and remote areas of Australia adequate communications underpins the ability for students to access their education programs and resources. The importance of ensuring high quality, reliable and affordable communications services for educational purposes is critical and this has been magnified in many cases during the COVID-19 pandemic. ICPA (Aust) believes there are a number of key points of particular importance to achieving this.

INTERNET ACCESS

Sky Muster and Sky Muster Plus

The Sky Muster launch in 2016 was a game changer for many in geographically isolated Australia who rely on satellite internet to access educational programs and resources. The ongoing enhancement of this service over the past five years, most recently the launch of Sky Muster Plus, has continued to improve the experiences and opportunities for users. Other developments such as WiFi calling and SMS over WiFi have further enhanced the communications experience of Sky Muster and Sky Muster Plus users.

The availability of Sky Muster Plus has meant that rural and remote students who are not eligible for the Education Port can take advantage of the Sky Muster Plus service and its unmetered education sites. This includes tertiary students and boarding students who increasingly have to partake in study, submit assessments and assignments while home from their education institution. COVID-19 has exacerbated this expectation.

Our members require assurance that the following are maintained and where possible enhanced as part of Sky Muster satellite services:

- continuation of the subsidy for instalment/equipment of Sky Muster for RRR families
- access to services which provide adequate capacity and capability for educational purposes, be this Sky Muster Plus, Sky Muster Education Service ('ed ports'), or an alternative equal or better service

- the ability to receive SMS over WiFi
- WiFi Calling
- unmetered/increased data allowances (ICPA Aust recognises that the nature of satellite services and the potential for oversubscribing as seen with previous satellite internet technology means there are some impediments to the data allowances which can be provided by these services)
- unmetering of video streaming on Sky Muster Plus for the purpose of accessing educational links such as tutorials.

Satellite Internet Limitations

It is essential to recognise that while satellite services have greatly improved the experiences of many rural and remote residents, there are limitations for users of satellite technology which means it is not sufficient as a standalone communications service. Satellite latency, speed variability and dependency on power can cause issues to the user experience and indeed limit the ability to work 'in the cloud'. The impact of the weather and landscape conditions in some locations can also impact quality, accessibility and availability of services, resulting in a lack of access to education should these impacts occur. This must be taken into consideration to ensure that services provided are suitable in the first instance and are also continuously maintained and upgraded once installed.

Another limitation of significance is the difficulty end users sometime face when trouble shooting their connection when it is not working. Retail Service Providers (RSP's) need to be more forthcoming with up to date practical solutions to help rectify connection issues in a timely manner.

The ever increasing need for end users to resolve issues through a chat system is also problematic and unworkable at times given the already restrictive connectivity which exists for many rural and remote customers.

ICPA (Aust) are adamant that two sources of communications must be available as the sole reliance on one source not only impedes access to education, but also seriously impacts safety of life in a rural and remote setting.

Portable/Mobile Internet

ICPA (Aust) is seeking the development of portable/mobile internet for transient families working in rural and remote locations who require access to internet services to study via distance education. We are pleased there has been some progress in this space, with trials being undertaken and solutions being investigated, however it will be essential that support such as financial subsidies and equipment provision be provided to access solutions if and when they are made available.

ICPA (Aust) believes this relatively small number of students (most probably less than 50 in total) are getting left further behind due to connectivity issues and the ever increasing need to access curriculum digitally. These students are also losing touch with their centre School of Distance Education as many are unable to participate in online lessons with their teachers and classmates. Distance Education has moved significantly to a more web based, direct teaching model and if students are unable to access live lessons, they miss these critical social and learning opportunities. Every student has the right to identify and be a part of their school and these students should be no exception.

Alternative Services and Technology

Limited alternatives for internet connectivity and services in regional, rural and remote Australia continue to impede equitable educational opportunities. New, emerging or alternative technologies may assist educational access including enhancement of online activity for rural schools and distance education delivery, either as a backup, supplementary or replacement service.

ICPA (Aust) urges the Commonwealth Government to continue to work proactively and cooperatively with companies attempting to bring diverse universal broadband internet to Australia, including alternative satellite-based internet services and technologies. The importance of options and choice when accessing internet services is vital, with the potential for alternative technology to provide more affordable, practical and accessible solutions for geographically isolated families.

MOBILE COVERAGE/SERVICE

Fixed Wireless

As demand increases for communications access throughout rural and remote Australia equal to metropolitan areas, issues have arisen with oversubscription of local wireless towers and indeed changes to the reliability of services where this form of connectivity is relied upon for educational purposes. It is essential that these circumstances are addressed and rectified as a matter of urgency when and where they arise.

ICPA (Aust) encourages the unmetering of educational sites on mobile networks, as well as increased data allowances to assist families who either rely on mobile broadband for education provision or use it as an adjunct to other internet services (such as those families who may have a Sky Muster or Sky Muster Plus service as their primary service).

3G to 4G/5G Changeover

As the changeover from 3G coverage to 4G/5G eventuates, assurance is needed that the new coverage is equal to or better than it has been with 3G – that is, anyone who can access 3G now should still be able to access this service after it is closed down. Until this can be confirmed, the 3G shutdown should not proceed.

ICPA (Aust) members have also requested that financial or other assistance such as discounted or subsidised equipment and hardware be made available to assist residents to change between technologies where equipment, over and above standard requirements, is needed to access these technologies in rural and remote areas. An example is the requirement for a Cel-fi booster needed to access mobile services to be changed from 3G to 4G/5G.

For a metropolitan customer, a change of technology such as the move to 5G from 3G may require the replacement of a handset, however will otherwise have very limited impact on their communication services. However for rural and remote customers who require extra equipment to access technologies, which they must fund, access and install themselves, such a change is far more impactful and provision of assistance to adapt would ensure these customers are not left behind when these changes occur.

Mobile Black Spots Program (MBSP)

ICPA (Aust) has been grateful for the acknowledgement of the need for increased service for remote and rural schools throughout the Mobile Black Spot Program (MBSP) and the focus on schools in previous rounds. We believe the program should continue in an endeavour to expand the current Mobile footprint and, in so doing, isolated rural and remote schools should remain as priorities.

Congestion/Shrinking Coverage

Previously, the use of illegal boosters was draining mobile signal in numerous regional, rural and remote areas. Following a large awareness campaign and crack down which saw many of these repeaters removed, it was hoped that the congestion issue would improve. However, mobile infrastructure in rural and remote areas continues to be overwhelmed with increased demand coming from a variety of sources such as numerous travellers visiting areas for longer stays, mining

developments and operations and other industry in rural and remote areas. This in turn impacts the available signal which community residents rely on. A smaller footprint or shrinking coverage area of signal is also being reported in communities.

TELEPHONE AND VOICE SERVICES

Alternative Voice Services Trial (AVST)

ICPA (Aust) welcomes the government's commitment to investigating and identifying alternative technologies to replace antiquated services such as High Capacity Radio Concentrators (HCRC) and copper lines, which are currently deteriorating and indeed in many cases unserviceable.

ICPA (Aust) are disappointed that the Alternative Voice Services Trials (AVST) which promised to investigate and identify alternative technologies has resulted in primarily satellite based alternatives, essentially Voice over Internet Protocol (VoIP), which is for the most part already available. Satellite internet based solutions for voice services in rural, remote and very remote areas are not a satisfactory alternative as these families require a voice service which is independent from their data service, reliable in weather events, power outages and do not suffer from latency. Geographically isolated families require access to *at least two alternative sources of communications* to ensure they have a working method of communications available to them the majority of the time.

This would not be the case for many residents currently solely reliant on satellite for internet should their existing not satellite based voice service be transferred to a similar technology. ICPA (Aust) appreciate that the trials were only able to fund those technologies offered by interested parties and welcome assurance that nothing will change with regards to current phone service types unless the solutions are equal to or better than existing services and we implore the Review Committee to recommend this to be guaranteed. We also urge government and service providers to investigate further alternatives to these old technologies to ensure rural and remote families have access to a high quality, reliable voice service.

OTHER FACTORS

Reliability and Maintaining of Existing Services

In geographically isolated parts of Australia it can prove challenging not only to provide adequate communications services but to also ensure these services are maintained, repaired and reliable. ICPA (Aust) continues to advocate that, where educational delivery hinges on the availability of communications technology, it is essential that priority is given to the installation and maintenance of these services. The sometimes unreliable of voice services and internet technologies, (eg. the impacts of inclement weather on satellite services) can cause significant issues for rural and remote families especially when the education of students is reliant on these technologies working.

This extends to both antiquated systems such as HCRC technology through to the current VPIP technology available for use and any other technology currently in use in rural and remote areas. While the Universal Service Guarantee (USG) continues to be in place, we are aware of many cases where this has not been upheld. We are also very concerned that there are situations where telecommunications providers are limiting maintenance and repairs of older, existing technologies despite there being limited to no alternatives to these technologies in many areas. It is also imperative that ongoing inspection, scrutiny and enhancements are made to continuing technology to insure it is working correctly. ICPA (Aust) have had concerns raised on the degrading of some technologies over time and it is essential that where there are no alternatives or upcoming replacement technology that the current standards are at least maintained.

ICPA members have raised the need for reliable landline handsets which can simply be plugged into a working phone line (jack). Many landlines today have features requiring power and hence are non-

effective when there are power outages or for rural properties relying on generator power, which is an issue for rural and remote customers when the generator is not operating (ie. calling 000 during the night, or students trying to use the phone for a voice lesson if power is off).

Telehealth

Telehealth offers innovative opportunities for the delivery of allied health and specialist services such as speech pathology, mental health consultations, occupational therapy intervention to aid fine motor skill development and even capacity building to support educators and parents dealing with children experiencing difficulties in rural and remote areas. Availability, accessibility and adoption of telehealth services in rural and remote areas hinges on the availability of adequate technology and connectivity to these children and their families.

Digital Literacy and Support Services

A key impediment to the communications experiences of rural and remote members is a lack of understanding of communications and technology in rural and remote areas, not only in the case of individual consumers, but across many levels of the community. It is essential that there is a concerted effort toward building digital literacy and imparting relevant and accurate support and information in rural and remote areas to ensure ample opportunity for all residents to understand their communications options.

For example, in some states, issues with internet connections have occurred at small rural schools because school staff had limited understanding of their connections and could not directly contact their providers to gain assistance as this had to be done by the state education department. The state education department however do not always have the expertise in the various technology systems available to a school in rural and remote locations, which are often very different to a metropolitan school.

One suggestion is that Local Governments could be encouraged and supported to provide more exposure to digital literacy and upskilling opportunities to community members through workshops in order to grow understanding and confidence through using a variety of communication resources in rural and remote communities. In NSW there is funding available from the State Government called “Tech Savvy seniors program”, which is available to libraries and Registered Training organisations for addressing digital literacy. The Federal Government offers “Be Connected” Funding for digital literacy to libraries and Registered training organisations. Both of these funding avenues have their limitations, such as age demographics or topics. These programs could pave the way for an extension to assist with digital literacy, especially for rural and remote customers.

It also essential that the on the ground experiences, local knowledge and skills of local residents are not discounted and are indeed harnessed to promote awareness and build digital literacy in these locations.

As the Regional Tech Hub develops further, there is opportunity for them to play a more active role in cultivating digital literacy which would be in line with the 2018 Regional Telecommunications Review recommendation 10a “Developing an online technology ‘hub’ to provide independent and factual information to help support people to build up the skills to solve telecommunications issues.”

The Federal Government supported this 2018 recommendation with the following response:

“A digital tech hub (recommendation 10a) would provide independent and factual information about the choices of digital technologies and applications. The telecommunications market place and technology are changing and have become much more complicated. There is confusion and concerns among regional consumers, much of which flows from a lack of knowledge about the responsibilities

of each player in the supply chain and the most appropriate solutions to meet their needs and keep their services operating. The Government agrees to progress this measure as part of the Regional Developing an online technology 'hub' to provide independent and factual information to help support people to build up the skills to solve telecommunications issues."

Service and Support

It is imperative that service providers and their staff have adequate understanding and knowledge of the contexts and circumstances in which families are using their services in order to assist and support end users effectively and efficiently, especially where they are relying on services to educate their children.

ICPA (Aust) members report abysmal phone support from some providers, both for internet and phone services. This is also an issue when accessing a service provider shopfront where support and advice does not necessarily reflect the requirements of rural and remote customers. Not being able to access adequate support and assistance makes it especially challenging to receive quality services and repairs in rural and remote areas.

We welcome the announcement that Telstra would be moving their call centres on line, however this needs to go further to ensure there are centres which can address the unique needs of rural and remote customers for all their communications needs.

Regional Tech Hub

ICPA (Aust) welcomed the establishment of the Regional Tech Hub, following advocacy by our organisation and others of the need for effective and efficient communications support for regional, rural and remote customers. ICPA (Aust) believes that this service needs to be retained and expanded and urge the Review Committee to recommend surety of ongoing and secure funding for the Hub's continuation.

ICPA (Aust) believes the following issues should be addressed to ensure the Hub can reach its full potential and maximise the benefit to rural and remote families and students:

- The need for raised awareness that the Hub is available
- Expansion of hours to ensure home tutors preparing for distance education can access the service when needed i.e. early morning and later in evenings
- The provision of real time assistance from staff who have an understanding of the location and issues of customers
- The need for staff to be accessible, available and have experience in the on-the-ground situation
- The provision of a robust community network facility not unlike the BIRRR Facebook page where people can learn from people, be advised of issues e.g. outages and receive support from others who are having similar experiences. An example could be a distance education home tutor who cannot login 10 minutes before a lesson making a post on social media and being able to be advised by other home tutors that there is an issue or that they too cannot log on.

Government and Stakeholder groups

ICPA (Aust) participate in a number of groups which are specifically focussed on either rural and remote communications or more specifically communications in relation to education in rural and remote areas, including the Regional, Rural and Remote Communications Coalition (RRRCC) and the Distance Education Broadband Working Group (DEBWG). As the only organisation specifically

addressing the educational needs of geographically isolated students, ICPA (Aust) believes these groups are an essential conduit for our organisation to voice the experiences and needs of our members and we believe these groups must be supported and maintained.

During a consultation of the 2021 Regional Communications Review, ICPA (Aust) raised the point that businesses and families living in rural and remote areas often go to great lengths and personal cost in order to access reliable and adequate communications across a blend of technologies. Following are examples of costs and strategies some families are implementing in the hope of accessing reliable communications in rural and remote areas.

Conclusion

Equitable educational opportunities in rural and remote locations hinge upon the availability of high quality, reliable, affordable and adequate telecommunications. ICPA (Aust) welcome the opportunity to provide comment to the *Regional Telecommunications Review 2021* to emphasise the key telecommunications issues and considerations which impact the education of geographically isolated students.

EXAMPLES OF RURAL AND REMOTE FAMILIES ADDITIONAL EXPENDITURE IN STRIVING TO MEET THEIR TELECOMMUNICATION NEEDS

Example 1 - NSW Family

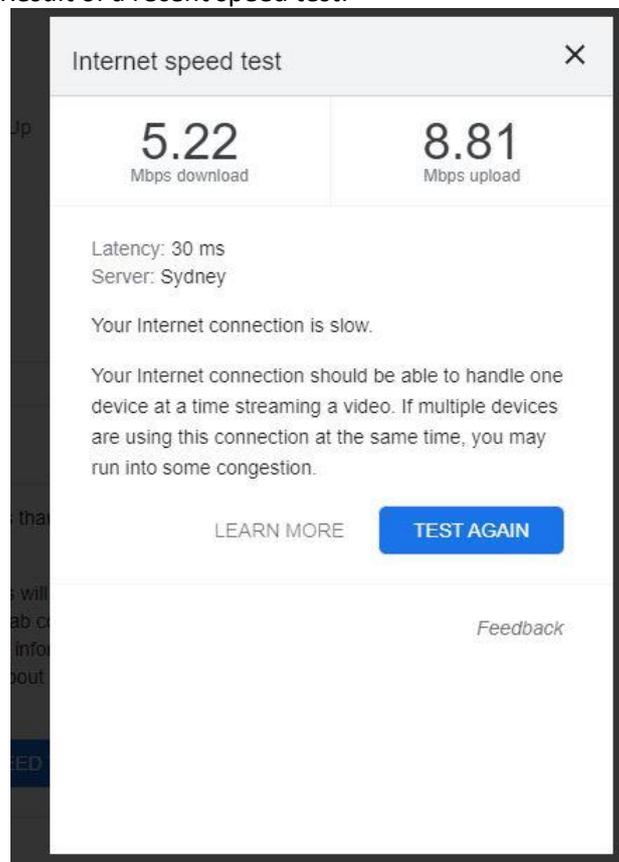
Old System - Very inadequate NGWL service

New System -

Wireless NBN with unlimited data allowance COST \$108.90 per month.

Installation (modem and dish for roof) \$2000.00

- This service is from a local provider (Just ISP or Field Solutions Group). The cotton growers put a lot of money into attracting this service to the area. It has certainly been worth it as our NGWL was inadequate. Current service is good, however some Zooms and Teams meetings freeze or drop out. I am never sure if it is my end or the other end. It is very reliable and the speed is good. Result of a recent speed test:



Example 2 - Central Qld Family

Current System-

- **\$10,000 (four years ago) to install a booster and directional antenna** around sheds to provide better service to staff cottages and main sheds.
- Installed a satellite NBN service to the cottage to replace Telstra wireless systems that kept burning out even with booster set-ups and chewing randomly through data, costing a small fortune. Fortuitously we happened to do this at the start of 2020 and in March converted the single staff quarters into "schoolrooms" so we all had enough data to keep operating (the business uses a separate satellite service) and learning.

- It is normal for us to have at least one student here doing practical placement. They need to communicate with supervisors, and complete two projects which involves lots of online research and needs to be submitted online.
- Other staff often choose to upskill while on the job via online learning (usually at night or on weekends).
- We currently have a family here with a primary school-aged child. It is essential for us to be able to provide a good standard of internet services to them and to our children when they have work to complete over holidays (everything seems to be online now!)
- When we have heavily overcast days or rain, our satellite services suffer and landlines tend to go down (Wireless Local Loop - operates on a solar-small battery system) so some days we have limited or no communication means for hours or days at a time.

New System-

- With ongoing difficulty, separate satellite and landline systems to every residence (7) separate satellite services at several monitoring stations (3), constant changes in coverage and oversubscription of the local wireless antenna (Cracow) we have decided to install a WiFi network to cover our property and part of my sister's second block with absolutely no communication service or coverage.
- This is through a group called "in2it", will cost us **\$25,000** and I think will involve 2-3 towers. (I feel the need to add that while this is a big cost, hopefully will in the next 5 years allow us to do away with some of our satellite and landline connections)
- Due to border closures, we have not been able to have this system installed and set up another mobile network system (through a group called Southcloud) to be able to utilise Auctions Plus for our sale. This was an additional cost of over **\$3,000**. While obviously not education related, this mobile system will probably be relocated to near another residence on the edge of the property once the big WiFi install is complete.

Example 3 - NT Family

Have spent approx. \$8,000 on 3 Cel-Fi Go, a base station and 3 mobile units

Example 4 - NW Queensland Family

Several rural and remote grazing properties, with three students currently doing secondary school via Distance Education at one property, and other properties with Distance Education students at times. Some of our staff are young people on gap years or are studying and require communications to continue these courses, as well as relying on communication for interviews/assessments for university placements. 5 students in this position this year and it seems to be becoming more prevalent with the COVID-19 situation with more students studying away from university campuses. Properties are all outside of mobile coverage range and all but one have HCRC phone systems, with the other being a copper landline which is out regularly, particularly when it rains.

Old System- satellite internet system in each main accommodation building and HCRC phones (1 copper line set up). One schoolroom with Sky Muster Education Service on one port.

New System- Sky Muster internet set up in all accommodation buildings, houses. Sky Muster Plus for all main residences, two school rooms and staff quarters. "Go" mobile units in most vehicles, 9 "Go" Boosters and Yagi antennae set ups, three "Hygain" antennae.

Approx. Hardware costs –

15 "Go" units (both Cel-Fi and Telstra) @\$800-900 each, up to \$1200 installed	\$18,000
9 Go Boosters and Yagi Antennae set ups @ \$1500 each	\$13,500
3 Hy-Gain Aerial set ups @\$5000 each	\$15,000
6 UPS units @\$250 each	\$ 1,500
Water monitoring units 10 @ \$1200	\$12,000

These figures don't include data or phone plan costs, which are available through a search for various providers. We also have 4 satellite phones and one sat sleeve.

Having the extra communications resources allows more consistent communications. If one service is down, there is usually an alternate way to access some service. As Sky Muster does not have a "pre-paid" service available, having mobile service available for staff, visitors and families on the properties is extremely helpful as each person/family can access additional data and be in charge of their own plans to meet their needs if what the station provides is not enough. We anticipate the amount we invest in communications to increase over the coming years as we continue to try to implement services which will provide our family, business, children and those who work with us reliable communications for work, study, health and safety.

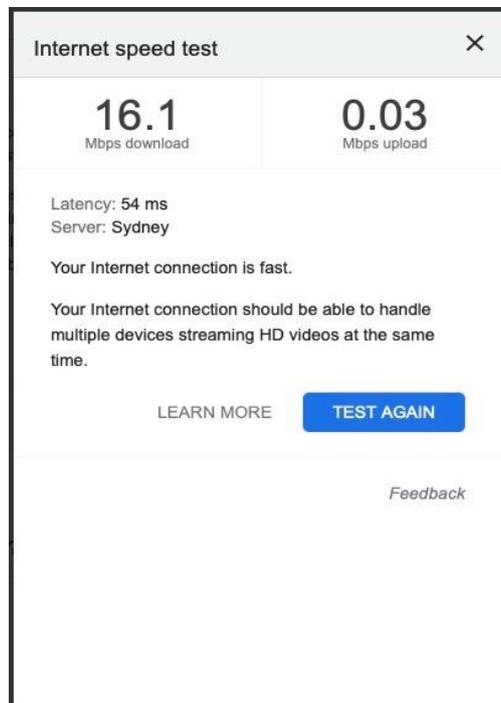
Example 5 - NW Queensland Family

Old System – Telstra Fixed Wireless Next G 20GB plus various shared data dongles in an attempt to maximise available data COST approx. \$330 p/month when not exceeding data allowance.

New System –

Fixed Wireless internet offering unlimited data, 20mbps download/upload COST \$165 p/month plus \$330 installation fee (modem and dish).

- Company is Wi Sky, who have built own towers. We are serviced by a tower approx. 20km NE of our property. This tower provides fixed wireless to a number of surrounding properties in our area.
- Cel-fi booster in home \$1000.00 which will need to be upgraded once 3G network is moved over the 4G/5G. Fortunately did not need to purchase external aerial as signal was sufficient just with booster.



Fixed Wireless Internet speed

Example 6 – Nyngan NSW

Using Telstra wireless 200gb costing \$91/month, and Activ8 (nbn) is \$34.95 per month for peak and off peak. 15GB is available at 7AM to midnight on peak and off peak has 75 GB available from 1 AM to 7 AM.

Example 7 – Primrose Valley NSW

Satellite service with Skymesh costing \$74.95. There are occasional dropouts and limited coverage area, only within the house area and verandah. Download and upload speeds are: 44.63 Mbps and .48mbps upload. This family have multiple users on at any one time and generally do not experience many issues except for need to position workspaces in a cluster area.

Example 8 - Balranald NSW

On Skymuster plus 300gb for \$195/month which is 150gb off peak and 150gb on peak, and they never use the off peak.

Children home learning due to school closures in Victoria. They have Skymuster installed in a worker's cottage and pay \$95 per month. A total of \$290 per month.

They have recently tried to install a Cel-fi booster to try and get a mobile service, but the Cel-fi would not pick up a signal. If it had been success it would have cost them \$2500 to install.

Example 9 – Central Queensland

- In 2016, with three students studying ekindy/primary school via distance education, with daily online lessons, along with running our business from home, we had a total of 20G of data using the ISS at \$55 per month, always using this data well before the end of the month, meaning our children were unable to attend lessons once the data was used.
- Had Sky Muster installed in 2016 and until earlier this year had two separate plans – one for business/personal use \$74.95 per month for a 70/140 plan and one for the ed port \$50 per month (\$59.95 per month until 2019 when there were still two children in the schoolroom). Now have Sky Muster Plus and do not use ed port at a cost of \$74.95 per month 50/50 plan (plus unmetered data). We also use it for WiFi calling. Only works adequately in the house yard.
- installed a Cel-Fi and Yagi Antenna at a cost of \$1465, giving limited intermittent 3G service in the house. This allows access messages however it is not sufficient to load videos or complete education lessons. It also has a very limited coverage footprint in the house.
- Installed a Cel-Fi Go in one vehicle, costing \$1254. This still does not provide any mobile coverage anywhere else on the property, however has been useful at times to give access when travelling on rural roads to be able to access online school lessons.
- Telephone is a HCRC system.
- There is no mobile/satellite or other service over the remainder of the property. Two way radios are utilised for communications away from the house.